

REMARKS/ARGUMENTS

Claims 27-39 are active in the application, claims 1-26 having been cancelled (without prejudice to their presentation in a suitable Divisional application). Claims 27, 33 and 39 have been amended to require that the array (and a recording medium made from the array) have an in-plane squareness of from 0 to 0.6 and a perpendicular coercivity of up to 2 kOe. This amendment is supported by the specification at page 15, lines 21-22. No new matter has been added by these amendments.

The Claims stand rejected under 35 U.S.C. 102(b) over either Daimon et al, or Kikitsu et al, or under 35 U.S.C. 103 over the combination of Kikitsu et al and Black et al. However, none of these references describe a Nanoscale particle array having the required properties of the claims as now amended. In particular, the claimed invention requires that the nanoscale particle array (as well as magnetic information storage media made therefrom), comprise:

a substrate having a plurality of nanopores in a surface thereof; and one or more metals or non-metals deposited in the plurality of nanopores to a depth of at least 5 nm and with coercivity of at least 500 Oe; and that the product also has an in-plane squareness of from 0 to 0.6 and a perpendicular coercivity of up to 2 kOe.

None of the references provide any teaching regarding such a combination of properties in a Nanoscale particle array. Applicants have found that by the use of the method described in the present application, one obtains Nanoscale particle arrays that result in high recording density, and equally important, much increased uniformity in the magnetic intensity of perpendicular magnetic materials. Such properties are nowhere disclosed by the references. Additionally, there is no disclosure in the references of a method by which such Nanoscale particle arrays (having the required properties) can be prepared. As such, the references cannot anticipate or render obvious the present invention as claimed.

Daimon et al discloses a magnetic recording medium comprising alumite comprising fine pores in which a magnetic material is filled and having an in-plane remanence at least 2.5 times higher than a perpendicular remanence. However, there is no teaching in Daimon of any Nanoscale particle array as present claimed, having the required combination of properties, nor is there disclosure in Daimon of any method by which one could arrive at the present array or recording medium. As such, Daimon et al cannot anticipate the present invention.

The same holds for Kikitsu et al. This reference discloses magnetic recording media, but says nothing regarding how to arrive at the properties required by the present invention. As noted above, by using the process of the present invention, Applicants have been able to prepare arrays having not only high recording density, but also significantly increased uniformity in the magnetic intensity of perpendicular magnetic materials. Further, the method provided by the present Applicants gives the array as now claimed. As there is no disclosure in Kikitsu et al of an array or recording medium having the required properties now in the claims, nor any disclosure of a method by which one of ordinary skill in the art could arrive at such arrays or recording media, Kikitsu et al cannot anticipate the present invention.

Further, Black et al does not overcome the deficiencies of Kikitsu et al. Again, there is no disclosure of arrays having the required properties of the presently claimed invention, nor a disclosure of a method by which one of ordinary skill could modify Kikitsu et al in order to arrive at such properties in a Nanoscale particle array. As such, the combination of these references cannot render the present invention obvious as now claimed.

Since the references fail to disclose or suggest the present invention as now claimed, the rejections should be withdrawn.

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Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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